CHEMICAL AMPLIFICATION PHOTORESIST MONOMERS, POLYMERS THEREFROM AND PHOTORESIST COMPOSITIONS CONTAINING THE SAME

ABSTRACT OF THE DISCLOSURE

A chemical amplification photoresist monomer, a photoresist polymer prepared thereof, and a photoresist composition using the polymer. More specifically, a chemical amplification photoresist polymer comprising a fluorine-containing monomer represented by Chemical Formula 1, and a composition comprising the polymer.

The photoresist composition has excellent etching resistance, heat resistance and adhesiveness, and is developable in aqueous tetramethylammonium hydroxide (TMAH) solution. As the composition has low light absorbance at 193 nm and 157 nm wavelength, it is very useful for forming ultramicro pattern in the process using a light source of far ultraviolet, especially of VUV (157 nm).

Chemical Formula 1

In the Formula, R_1 , R_2 , R_3 and R_4 is defined in the specification.